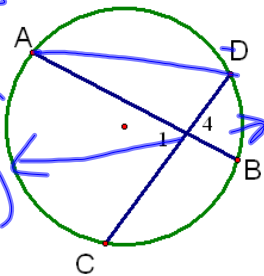


# 10-6 Other Angles

$$m\angle 1 = m\angle A + m\angle D$$

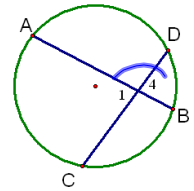
$$m\angle 1 = \frac{1}{2}m\widehat{DB} + \frac{1}{2}m\widehat{AC}$$

$$m\angle 1 = \frac{1}{2}(m\widehat{DB} + m\widehat{AC})$$



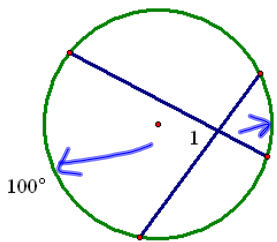
Theorem 10-12--The measure of an angle formed on the **inside** of a circle (by 2 secants or 2 chords) is half the **sum** of the measures of the intercepted arcs.

$$m_{side}\angle = \frac{1}{2} \sum m$$



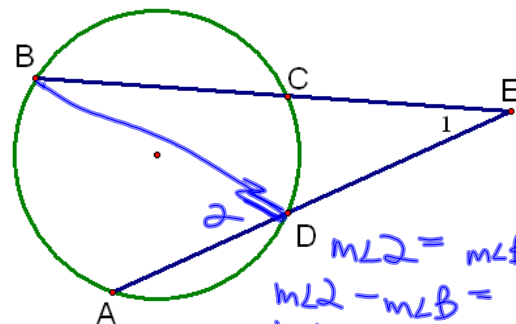
gsp

Find the measure of the angle.



$$m\angle 1 = \frac{1}{2}(100 + 40)$$

$$m\angle 1 = 70$$



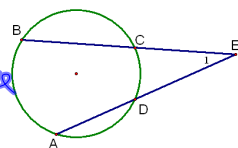
$$m\angle 2 = m\angle B + m\angle 1$$

$$m\angle 2 - m\angle B = m\angle 1$$

$$\frac{1}{2}(m\widehat{AB} - m\widehat{CD}) = m\angle 1$$

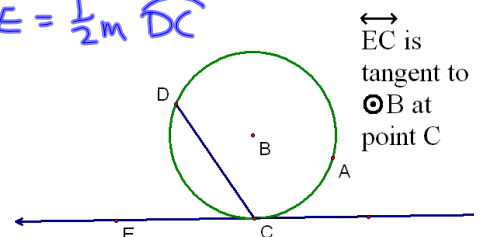
Theorem 10-14--The measure of an angle formed on the **outside** of a circle (by 2 secants, 2 tangents, or secant and a tangent) is half the **difference** of the measures of the intercepted arcs.

$$outside = \frac{1}{2} \text{ difference}$$



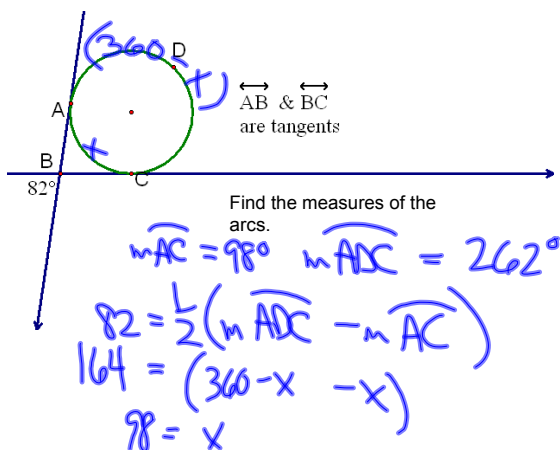
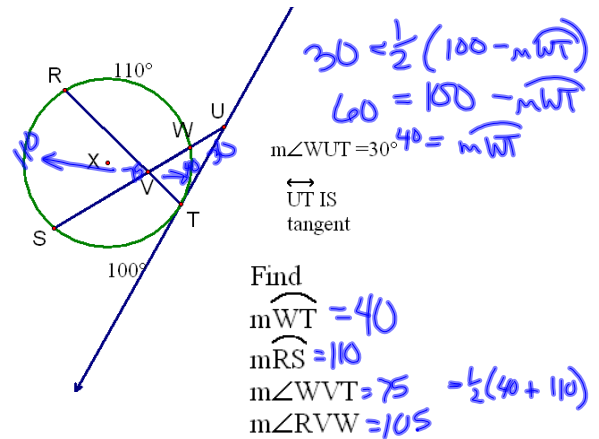
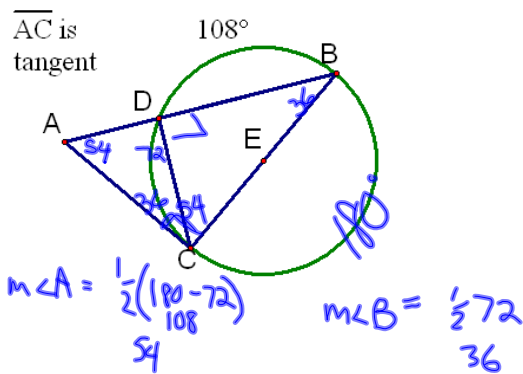
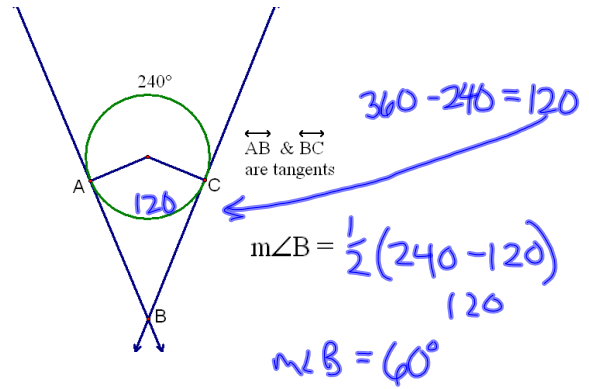
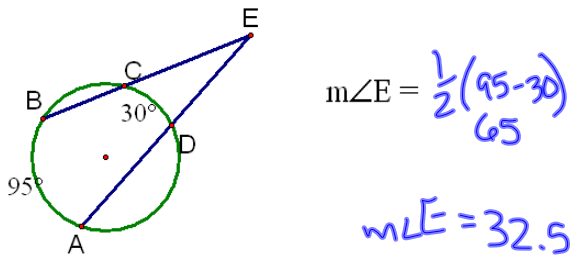
Theorem 10-13--An angle formed by a secant and a tangent at the point of tangency =  $\frac{1}{2}$  intercepted arc

$$m\angle DCE = \frac{1}{2}m\widehat{DC}$$



EC is tangent to  $\odot B$  at point C

gsp



HW  
p564-565 12-30

Attachments

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10\_6\_gsp\_example.gsp